

U. S. GEOLOGICAL SURVEY
 ANNUAL PEAK FLOW FREQUENCY ANALYSIS
 Following Bulletin 17-B Guidelines
 Program peakfq
 (Version 4.0, December, 2000)

Station - 05382300 BEAVER CREEK TRIBUTARY NEAR SPARTA, WI
 2002 MAR 13 09:02:59

I N P U T D A T A S U M M A R Y

Number of peaks in record	=	22
Peaks not used in analysis	=	0
Systematic peaks in analysis	=	22
Historic peaks in analysis	=	0
Years of historic record	=	0
Generalized skew	=	-0.397
Standard error of generalized skew	=	0.550
Skew option	=	WEIGHTED
Gage base discharge	=	0.0
User supplied high outlier threshold	=	--
User supplied low outlier criterion	=	--
Plotting position parameter	=	0.00

***** NOTICE -- Preliminary machine computations. *****
 ***** User responsible for assessment and interpretation. *****

WCF134I-NO SYSTEMATIC PEAKS WERE BELOW GAGE BASE.		0.0
WCF198I-LOW OUTLIERS BELOW FLOOD BASE WERE DROPPED.	1	40.9
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.		371.1

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ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

	FLOOD BASE		LOGARITHMIC		
	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	2.0929	0.1979	-0.255
BULL.17B ESTIMATE	40.9	0.9545	2.1055	0.1734	0.040

ANNUAL FREQUENCY CURVE -- DISCHARGES AT SELECTED EXCEEDANCE PROBABILITIES

ANNUAL EXCEEDANCE PROBABILITY	BULL.17B ESTIMATE	SYSTEMATIC RECORD	'EXPECTED PROBABILITY' ESTIMATE	95-PCT CONFIDENCE LIMITS FOR BULL. 17B ESTIMATES	
				LOWER	UPPER
0.9950	--	34.3	--	--	--
0.9900	--	39.4	--	--	--
0.9500	66.4	56.7	63.5	50.5	79.8
0.9000	76.6	68.3	74.5	60.5	90.3
0.8000	91.1	85.0	89.8	75.0	105.6
0.5000	127.2	126.3	127.2	110.0	146.9
0.2000	178.3	182.6	180.9	153.8	216.4
0.1000	213.0	219.0	219.3	180.5	269.8
0.0400	257.9	263.9	272.1	213.0	344.0
0.0200	291.9	296.4	315.1	236.6	403.8
0.0100	326.5	328.0	361.8	259.8	467.1
0.0050	361.9	359.2	413.1	283.0	534.4
0.0020	410.1	399.7	489.7	313.7	629.8
0.6667	107.2	(1.50-year flood)			
0.4292	136.5	(2.33-year flood)			

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I N P U T D A T A L I S T I N G

WATER YEAR	DISCHARGE	CODES	WATER YEAR	DISCHARGE	CODES
1959	152.0		1970	92.0	
1960	40.0		1971	200.0	
1961	134.0		1972	105.0	
1962	56.0		1973	103.0	
1963	104.0		1974	150.0	
1964	106.0		1975	140.0	
1965	104.0		1976	108.0	
1966	170.0		1977	370.0	
1967	168.0		1978	152.0	
1968	130.0		1979	80.0	
1969	140.0		1980	200.0	

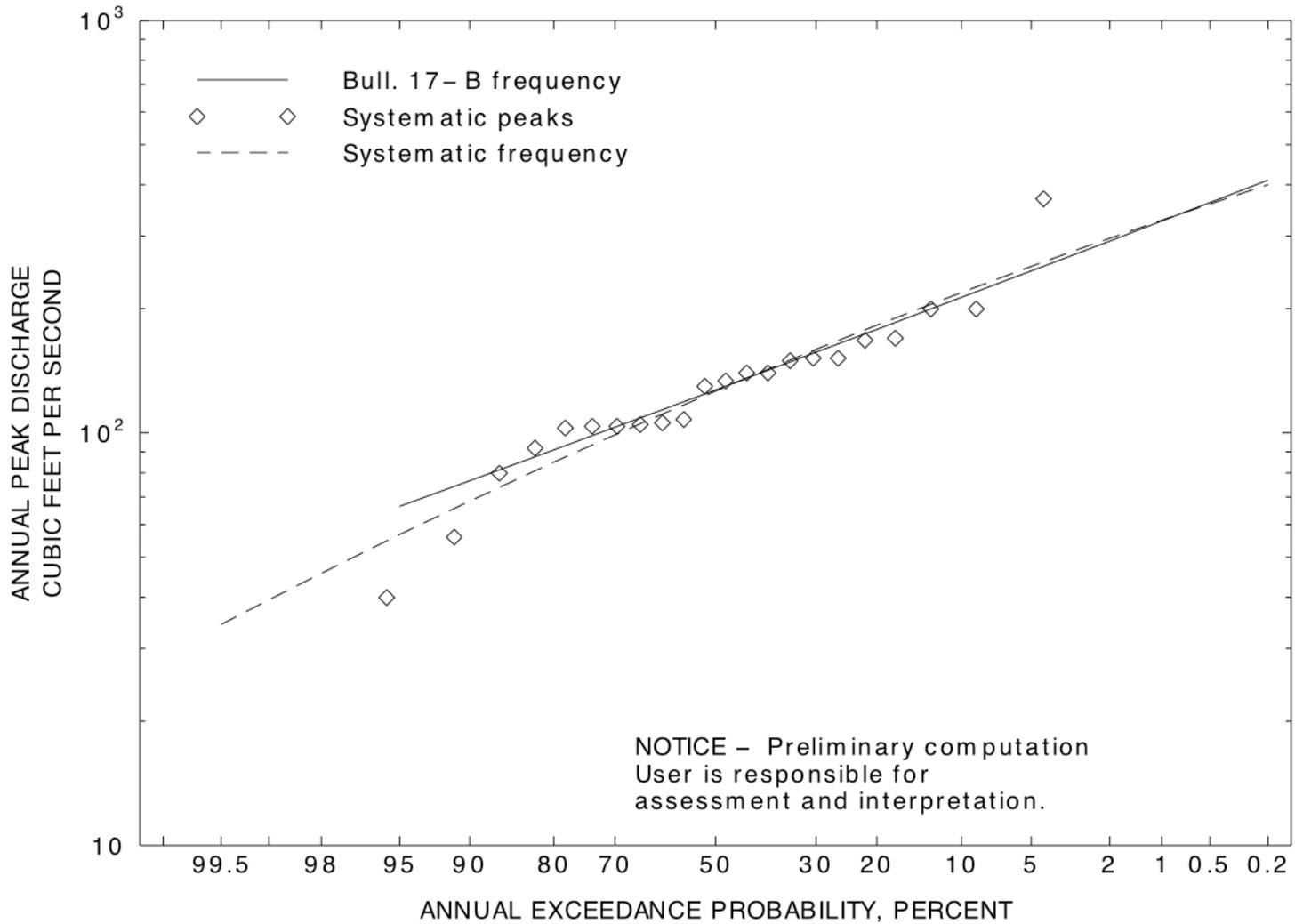
Explanation of peak discharge qualification codes

PEAKFQ	WATSTORE	
CODE	CODE	DEFINITION
D	3	Dam failure, non-recurrent flow anomaly
G	8	Discharge greater than stated value
X	3+8	Both of the above
L	4	Discharge less than stated value
K	6 OR C	Known effect of regulation or urbanization
H	7	Historic peak

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EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	BULL.17B ESTIMATE
1977	370.0	0.0435	0.0435
1971	200.0	0.0870	0.0870
1980	200.0	0.1304	0.1304
1966	170.0	0.1739	0.1739
1967	168.0	0.2174	0.2174
1959	152.0	0.2609	0.2609
1978	152.0	0.3043	0.3043
1974	150.0	0.3478	0.3478
1969	140.0	0.3913	0.3913
1975	140.0	0.4348	0.4348
1961	134.0	0.4783	0.4783
1968	130.0	0.5217	0.5217
1976	108.0	0.5652	0.5652
1964	106.0	0.6087	0.6087
1972	105.0	0.6522	0.6522
1963	104.0	0.6957	0.6957
1965	104.0	0.7391	0.7391
1973	103.0	0.7826	0.7826
1970	92.0	0.8261	0.8261
1979	80.0	0.8696	0.8696
1962	56.0	0.9130	0.9130
1960	40.0	0.9565	0.9565



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